

Appl. No. 09/289,000
Amdt. dated June 3, 2005
Reply to Office Action of April 5, 2005

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for treating a joint formed by opposing bones having first and second mating joint surfaces so that relative slidable joint motion between the bones is permanently maintained comprising the following steps:

removing at least a portion of the first joint surface to expose a cancellous bone surface covered by a layer selected from the group consisting of at least one of blood clot and hematoma;

selecting an implant made of bioresorbable material only and having a face adapted to face the cancellous bone surface;

placing the bioresorbable implant between the second joint surface and the cancellous bone surface so that the face is in slidable contact with the layer covering the cancellous bone surface and the implant initially keeps said exposed cancellous bone surface spaced apart from the second joint surface while permitting unrestricted relative slidable motion between the face and the cancellous bone surface including the layer covering it;

using the joint while allowing resorption of the implant and causing unrestricted slidable motions between the face and the layer covering the cancellous bone surface to stimulate the formation of fibroblast at from the layer covering the cancellous bone surface so that the fibroblast can progress into fibrocartilage as the implant is resorbed, the fibrocartilage replaces the implant during such resorption, and thereafter relative slidable motion between the bones along the fibrocartilage occurs when using the joint.

Claim 2 (previously presented): The method of claim 1 further comprising the step of selecting the bioresorbable implant made of a polymer of lactic acid.

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Claim 3 (previously presented): The method of claim 2 wherein the selecting step is carried out by selecting a lactic acid copolymer.

Claim 4 (previously presented): The method of claim 1 further comprising the steps of:

estimating the period time it will take for the fibroblast to progress into fibrocartilage; and

selecting the bioresorbable implant of a size, shape and material according to said period of time.

Claim 5 (previously presented): The method of claim 1 further comprising the step of ensuring the exposed cancellous bone surface and the face of the bioresorbable implant placed against said cancellous bone surface have complementary surface shapes.

Claim 6 (previously presented): The method of claim 5 wherein the ensuring step includes the step of selecting curved surface shapes as said complementary surface shapes.

Claims 7-23 (cancelled)

Claim 24 (currently amended): A method for treating at least one degenerated surface on a cancellous bone, the cancellous surface being one of first and second relatively slidably movable surfaces defining a non-weight bearing body joint, so that slidable joint motion between the bones is permanently maintained, the method comprising the steps of resecting the bone to form the at least one degenerated cancellous bone surface to expose a layer selected from the group consisting of at least one of blood clot and hematoma thereon, placing an implant made of bioresorbable material only between the at least one degenerated cancellous bone surface and the second surface to thereby space the surfaces apart, providing the implant with at least one face which is opposite and shaped complementary to at least one degenerated cancellous bone surface so that the implant can slidably move without restriction relative to the at least one degenerated cancellous bone surface, allowing the face to slidably move relative to the at least one degenerated cancellous bone surface and the layer selected from the group consisting of at least one of blood clot and hematoma without restriction to thereby stimulate the

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growth of fibroblast from the layer selected from the group consisting of at least one of blood clot and hematoma on the at least one cancellous surface and the conversion of the fibroblast into fibrocartilage during the allowing step, and gradually resorbing the implant during the allowing step so that, upon resorption of the implant, the fibrocartilage forms at least one of the body joint defining surfaces.

Claim 25 (currently amended): A method for treating a non-weight bearing joint having first and second mating joint surfaces so that slidable joint motion between the bones is permanently maintained comprising the following steps:

removing at least a portion of the first joint surface to generate an exposed cancellous bone surface covered by a layer selected from the group consisting of at least one of blood clot and hematoma;

placing an implant made of bioresorbable material only between and in contact with the exposed cancellous bone surface and the second joint surface so the implant initially keeps said exposed cancellous bone surface spaced apart from the second joint surface;

providing the implant with a face which is opposite the exposed cancellous bone surface;

permitting unrestricted relative slidable motion between the face and the exposed cancellous bone surface;

using the joint and slidably moving the face relative to the exposed cancellous bone surface and the layer without restriction caused by the implant;

allowing formation of fibroblast from the layer and of fibrocartilage from the fibroblast while using the joint as the implant is resorbed and continuing to slidably move the face relative to the exposed cancellous bone surface;

following the complete resorption of the implant continuing to slidably move the second surface along the formed fibrocartilage;

estimating the period of time it will take for the fibroblast to progress into fibrocartilage; and

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selecting the bioresorbable implant of a size, shape and material according to said period of time.

Claim 26 (currently amended): A method for treating a joint having first and second mating joint surfaces carried by cancellous bone so that slidable joint motion between the bones is permanently maintained comprising:

removing at least a portion of the first joint surface to expose a cancellous bone surface ~~and covering the bone surface with~~ covered by a layer selected from the group consisting of at least one of blood clot and hematoma thereon;

forming a cavity into the medullary canal of the cancellous bone carrying the second joint surface;

selecting an implant made of bioresorbable material only and configured to fit between the cancellous bone surface and the second joint surface, the implant having a face, a backside and a stem portion extending from the backside and configured to fit within said cavity;

inserting the stem portion into the cavity and placing the bioresorbable implant between the cancellous bone surface and the second joint surface so the implant initially keeps said surfaces spaced apart and the face is freely slidably movable relative to the cancellous bone surface and the layer;

using the joint while allowing complete resorption of the implant and permitting unrestricted relative slidable motion between the face and the cancellous bone surface and the layer; and

allowing formation of fibroblast from the layer and of fibrocartilage from the fibroblast while using the joint as the implant is completely resorbed to replace the implant and maintain relative slidable motion between the bones along the formed fibrocartilage.

Claims 27-31 (cancelled)